

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Rodney Daoghtrey Art Unit : 3639
Serial No. : 09/812,224 Examiner : Thomas Dixon
Filed : March 19, 2001 Conf. No. : 9468
Title : FARE RULES SUMMARIZER FOR TRAVEL PLANNING

Mail Stop Appeal Brief - Patents

Commissioner for Patents
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REPLY BRIEF

Pursuant to 37 C.F.R. §41.41, Applicant responds to the Examiner's Answer as follows:

Non-statutory subject matter

Appellant has not argued that "user interface" is a statutory class. Rather, Appellants argued that: "the claims are not drawn to an interface per se as a statutory class but rather are drawn to an article of manufacture, namely an interface displayed on a monitor."

The examiner also argues that: "Applicant's claimed 'user interface,' is not operated, as argued, but is simply a display on a screen, with no functionality to be operated, and is seen to be nonfunctional descriptive material, not an article of manufacture."

Appellant disagrees and contends that in view of recent court decisions such as *AT&T v. Excel* at 1453 while acknowledging that: "A mathematical formula alone, sometimes referred to as a mathematical algorithm, viewed in the abstract, is considered unpatentable subject matter. (citations omitted)" The court also recognized that:

Since the process of manipulation of numbers is a fundamental part of computer technology, we have had to reexamine the rules that govern the patentability of such technology. The sea-changes in both law and technology stand as a testament to the ability of law to adapt to new and innovative concepts, while remaining true to basic principles.

Applicant contends that the Board has already addressed an analogous situation in *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994) in which a data structure on a computer medium was expressly found to recite patentable subject matter by the Board and acknowledged

by the Federal Circuit in rendering its holding that a printed matter rejection did not apply to data structures, as claimed in Lowry. So to here, Appellant's claim 1, which calls for: "A user interface for a fare rule summary tool, the user interface displayed on a monitor . . .," recites patentable subject matter since the interface is displayed on the monitor.

The Examiner's finding that "claimed 'user interface,' is not operated, as argued, but is simply a display on a screen, with no functionality to be operated, and is seen to be nonfunctional descriptive material, not an article of manufacture." is not supported by the guidance expressed by the Federal Circuit in *In re Warmerdam*, 33 F.3d 1354, 31 U.S.P.Q.2d 1754 (Fed. Cir. 1994). In *Warmerdam*, the court found claims 1-4 and 6 were directed to a process that simply manipulated "abstract ideas" or "natural phenomena. In contrast, claim 5 was found statutory. Claims 1 and 5 are reproduced below:

1. A method for generating a data structure which represents the shape of [sic] physical object in a position and/or motion control machine as a hierarchy of bubbles, comprising the steps of:
first locating the medial axis of the object and
then creating a hierarchy of bubbles on the medial axis.
5. A machine having a memory which contains data representing a bubble hierarchy generated by the method of any of Claims 1 through 4.

In *Warmerdam*, the court held that claims 1-4 and 6 were directed to non-statutory subject matter, whereas claim 5 was clearly directed to statutory subject matter, even though it depended on claims 1-4, because it was directed to a machine. *Warmerdam*, 33 F.3d at 1360.

Thus, in *Warmerdam*, the Fed. Cir. found non-statutory subject matter directed to abstract ideas, statutory subject matter when tied to a machine. Here to, the display of claim 1 ties the interface to a machine, and therefore makes the combination of a display and interface statutory subject matter.

Prior Art Rejections

Claim 1

The examiner misconstrues Appellant's argument with respect to claim 1 and Tanner. In Appellant's argument, Appellant pointed out that while "Tanner may be enabling for the subject

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matter that Tanner sought to claim", it is not enabling for the subject matter claimed by Appellant. There is no contradiction in this argument. The examiner argues that:

The examiner finds the features of the claimed "a fare evaluation result table" in Tanner, "... figures 4A and 4B are attached at line A. 4A, shows a fare results evaluation table with alternate itineraries (slices) for flights from DFW to FRA and with columns for fares (labeled Adult, Approx. Tax and Total) and a column labeled RULES which is seen to be a summary and rows with fares, further, 4B discloses fares (\$618) and more explicitly discloses fare rule summaries, which are the Fare basis codes "QBNRHX QBNRHX."

Applicant's language "a first one of rows and columns" and "a second one of rows and columns" is seen to be "at least one of a row or column" and as figure 4B displays both the fare (\$618) seen to be a first column and the fare rule summary (QBNRIHX QBNRHX) seen to be a second column. Tanner is seen to disclose the claimed table.

Appellant has positioned Figs. 4A and 4B side by side as instructed by Tanner.

Appellant contends that Tanner still does not disclose "a fare evaluation result table that displays fare rule summaries for fares in slices of an itinerary, the fare evaluation result table having a first one of rows and columns representing fares and a second one of rows and columns representing the fare rule summaries."

The examiner contends that Tanner displays slices for flights from DFW to FRA. Appellant disagrees. Tanner displays different travel options for travel between DFW and FRA.

not slices.¹ The examiner contends that Tanner displays fares "... and with columns for fares (labeled Adult, Approx. Tax and Total)." Appellant also disagrees. What those columns display are prices, e.g., the monetary value ascribed to the travel option. One cannot tell from that price whether the price is the result of one fare or of the combination of more than one fare. However, the fares are not themselves displayed in Fig. 4A or Fig. 4B.

The examiner also states that Tanner displays: "... a column labeled RULES which is seen to be a summary and rows with fares, further, 4B discloses fares (\$618) and more explicitly discloses fare rule summaries, which are the Fare basis codes 'QBNRHX QBNRHX.'"

Appellant contends that the examiner has not shown that "QBNRHX QBNRHX" are fare rule summaries. Appellant contends that they are booking codes as disclosed by Tanner.

In contrast, Appellant's FIG. 3 is reproduced below:

Fare	Rate summaries: 80										Comb. 98
	Price	INT	FR	Adv	Min Max	3H	3M	Tax	Sis	Pen	
CO-BOS->PHL.OW.Y	\$508	-	-	-	-	-	-	-	-	-	E - G
TW-BOS->PHL.DMAX	\$508	-	-	-	-	-	-	-	-	-	E - G
TW-BOS->PHL.OWT	\$798	-	-	-	-	-	-	-	-	-	E - G
CO-BOS->PHL.OWT	\$798	-	-	-	-	-	-	-	-	-	E - G
DL-BOS->PHL.KT.RET/RET	\$731	-	148	-	-	-	-	-	-	-	E - G
DL-BOS->PHL.KT.RET/RET	\$731	-	148	-	-	-	-	-	-	-	E - G
US-BOS->PHL.OWT.RET/RET	\$118	-	101	-	-	-	-	-	-	-	F - G
DL-BOS->PHL.OWT.QNR	\$112	-	98	-	-	-	-	-	-	-	G
CO-BOS->PHL.QT.QC1E143P	\$94	-TW-	-	148	-	-	-	-	-	-	E - G
DL-BOS->PHL.QW.L2A144R	\$44	intenss	-	148	-	-	-	-	-	-	G
TW-BOS->PHL.QT.QSE143R	\$44	-TW-	-	148	-	-	-	-	-	-	E - G
US-BOS->PHL.QW.VM14TSQ	\$44	intenss	-	148	-	-	-	-	-	-	E - G
PL-BOS->PHL.QWT.QRL	\$44	-	310	-	-	-	-	-	-	-	G
LF-BOS->PHL.QW.QM1QMR	\$45	-Ss-	-	-	-	-	-	-	-	-	E - G
LF-BOS->PHL.QT.YR21NQ	\$45	-	9821	-	-	-	-	-	-	-	G
CS-BOS->PHL.QT.QSE21P	\$52	mTW-S-	-	218	-	-	-	-	-	-	E - G
XA-BOS->PHL.QT.YE21ENR	\$65	mTW-S-	-	218	-	-	-	-	-	-	G

FIG. 3

It is evident that Tanner does not display fares. As shown in Appellant's FIG. 3, the fare has a unique code to identify the fare, e.g., "CO.BOS->PHL.OW.Y.", whereas, "price" is a monetary amount for the particular fare, which the examiner mischaracterizes as a fare. As also shown in

¹ See Appellant's specification page 5, line 11; page 5, lines 25-26; page 6, lines 21-23.

FIG. 3, the fare rule summaries are a set of columns that have entries for different applications of the fare rules to the fares. The examiner has not shown that either Tanner or the art in general view "price" as a "fares." Rather "fares" have a unique meaning, as disclosed in Appellant's specification.²

Accordingly, Tanner does not teach the features of claim 1.

Claims 2 and 29

In order to make obvious claims 2 and 29 the examiner turns to figure 3 from Tanner, which is similar to figure 4A, but, fails to show rows including fares and columns including rule summaries.

Claims 4 and 31

These claims deal with "combinability restrictions" not "combinability rules" as stated by the examiner. The examiner argues for claim 4 that "combinability rules are expressed as letters of the alphabet and that Tanner which discloses a fare basis "QBNRHX QBNRHX" does not teach that those letters of the alphabet are combinability rules." The Examiner explains that Tanner does teach "QBNRHX QBNRHX" as "combinability rules", by using Whitesage as: "a teaching reference to what the alphabetic codes."³

Appellant contends that now the examiner uses, "QBNRHX QBNRHX" as "combinability restrictions" when previously in claim 1 the examiner argued⁴ that "QBNRHX QBNRHX" were the fare rule summaries. Appellant submits that they are neither, but points out that the examiner has vitiated his own argument, since "QBNRHX QBNRHX" cannot be both "combinability restrictions" as used in claim 4 and the fare rule summaries as the examiner used in claim 1.

² For example, database 20a can store the Airline Tariff Publishing Company database of published airline fares and their associated rules, routings and other provisions, the so-called ATPCO database. (Appellant's specification page 3, line 28 to page 4, line 2).

³ Examiner's answer page 9.

⁴ ... more explicitly discloses fare rule summaries, which are the Fare basis codes "QBNRHX QBNRHX." (Examiner's Answer page 8.)

The examiner has not provided any basis upon which Whitesage's letters and Tanner's letters have equivalent functions. Appellant had asked the examiner to show that the letter codes in each reference were ascribed to the same industry standard not that they are a well known standard in the industry. Contrary to the examiner's assertion, Applicant's specification does disclose sources of the values associated with applicant's letters.⁵ While, the examiner may have used letters that have known values in the airline reservation arts, the examiner still has not shown that the references are using the same industry standards.

Therefore, in order for the examiner to properly combine Whitesage with Tanner, the examiner must show that Tanner subscribes to the "Prism Group Fare Dex" codes, described in Whitesage. Otherwise, the examiner's argument regarding translation of "QBNRHX" has no meaning. Moreover, while Whitesage discloses FAREDEX and assuming that a translation of "QBNRHX" could in fact be as described by the examiner, (which Appellant does not concede) "QBNRHX" as shown in Tanner does not meet the claim limitation of: "least one of the columns represents fare combinability restrictions." Indeed, even if "QBNRHX" is a fare combinability restriction, it is a restriction only on the depicted fare. "QBNRHX" as it is used by Tanner is not one of the columns that represents fare "combinability restrictions" on a set of fares, as required by claim 4.

Claims 5 and 32

Claim 5 limits claim 1, and requires that the fare evaluation result table has the fare rules organized into categories of fare rules, and cells of the fare evaluation result table contain a status that would correspond to pass, fail, or defer for the fares. The examiner argues that "Avl" (availability, a button (circle with a dot in it)) of Tanner is equivalent to a status of "pass" and that an Avl (availability) of "n/a" is equivalent a "fail."

Tanner does not disclose "n/a" in Tanner's specification as far as Appellant can see, and the "a button (circle with a dot in it)" is merely a depiction of a radio control button commonly employed on user interfaces. Tanner does disclose that:

⁵ Fares and their associated rules are published by airlines and resellers, typically provided through an intermediary such as The Airline Tariff Publishing Company (ATPCO). (Appellant's specification page 1)

IV. The available net fares are displayed in a sorted order (based upon lowest price).

Each line of the net fares list has been evaluated for availability and for a potentially lower published price. Available published fare flights are displayed (if desired by the client), and are highlighted in the sorted order of the queue. If availability is found, a button at the end of a particular flight option is displayed which, when activated, displays a screen of outbound and return flights appropriate to the flight option.

Therefore, one can reasonably conclude that "Avl" is directed to whether or not the travel option is available, e.g., whether a seat can be sold on the flight, which has no relevance to a fare rule. However, assuming *arguendo* that Avl has something to do with a fare rule, Avl still does not address the feature of the fare rules organized into categories of fare rules, and cells of the fare evaluation result table contain a status that would correspond to pass, fail, or defer for the fares. The examiner's argument still does not address the claimed feature.

Claims 15 and 36

Appellant contends that Claim 15 distinguishes over Tanner '590 for the reasons discussed in the Appeal Brief and the examiner's argument regarding figures 4A-B, 8A and 7B and Avl as equivalent to a status of "pass" and "n/a" as equivalent a "fail" are totally without merit for the reasons discussed above.

Claims 16 and 37

Appellant's claim 16 is directed to the feature of determining whether the summary is complete, likely complete, partially complete or missing information.

The Examiner argues that Avl (availability, a button (circle with a dot in it)) of Tanner is equivalent to a status of "incomplete" and that an Avl (availability) of "n/a" is equivalent a (sic) incomplete."

Appellant contends that this argument is without merit, contradicts the arguments made by the examiner in claim 5 and still does not meet the claim language since, the claim requires the step of: "determining whether the summary is complete, likely complete, partially complete or whether the summary is missing information." No computer implemented step of determining is described or enabled by "a button (circle with a dot in it)" or the expression "n/a."

Claims 17 and 38

The Examiner is correct that a typographical error exists in claim 17. This will be corrected by Appellant after appeal. However, Claim 38, which has an analogous limitation as claim 17, does not have such error. Claim 38 requires: "represent the summary in a table where rows of the table represent fares and columns of the table represent rules or categories." On that basis where rows of the table represent fares, Appellant contends that claim 17 is distinguished over Tanner, since figures 3, 4A and 4B attached at line A neither disclose a fare since "(\$618)" is a price and is neither a fare nor fare rule summaries, for the reasons discussed above. Thus, Tanner neither describe nor suggest to: "represent the summary in a table where rows of the table represent fares and columns of the table represent rules or categories."

Appellant also contends that Tanner does not disclose claim 17 even with the typographical error.

For claims 19, 20 and 22-27 the examiner offers no answer to any of Appellant's arguments raised for those claims in the Appeal Brief.

Claims 18, 21 and 39

Claim 18 further limits claim 15 by reciting: "representing the summary in a table where rows of the table represent fares and columns of the table represent rules or categories, and applying a color to cells of the table with the color scheme signifying whether the cell corresponds to pass, fail, or defer status." The Examiner argues that: Tanner has an equivalent table, which Appellant contends is incorrect. The examiner also argues that: "Tanner further uses hyper links (the circles with dots in them, in the figures are graphic hyperlink buttons)." Appellant disagrees. Hyperlinks are not disclosed in Tanner either by the dots with circles or in the text.

The examiner uses Kirk as teaching "color, or a mix of text, graphics or hyperlinks, to distinguish the portions to attract the user's attention." However, Kirk is not seen as using color to delineate status, and in particular status of fare rule summaries. Moreover, the examiner has not shown why one of ordinary skill in the art would have been motivated to modify the dots with circles, which Appellant contends are radio buttons, by applying a color. As claim 18 is

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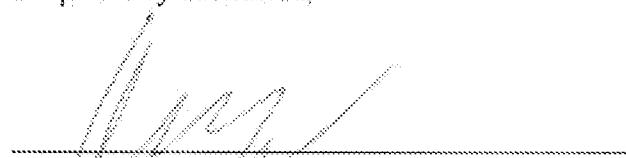
written, it requires applying "a color to cells of the table with the color scheme signifying whether the cell corresponds to pass, fail, or defer status." Structurally these features do not read on applying color to a control, as suggested by the examiner's argument.

For these reasons, and the reasons stated in the Appeal Brief, Applicant submits that the final rejection should be reversed.

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Respectfully submitted,

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